

# Commonwealth of Massachusetts Department of Fish and Game

## In-Lieu Fee Program 2021 Annual Report



March 1, 2022

## Table of Contents

	Page
Introduction	1
I. Executive Summary	1
II. ILF Payments, Mitigation Credits Sold and Calendar Year 2021 Financial Account Ledger	3
III. ILFP Mitigation Projects Underway	8
IV. Program Development Update	13
V. DMF ILFP Project Updates	14
<u>Appendix A</u> ILFP Map – Service Area boundaries, locations of impacts for which ILF payments were made & locations of existing and proposed ILFP mitigation projects	15
<u>Appendix B</u> Complete Listing of ILFP Payments Received and Mitigation Credits Sold	16

## **Introduction**

The In-Lieu Fee Program (“ILFP”) of the Massachusetts Department of Fish and Game (“DFG”) was established in May 2014. The U.S. Army Corps of Engineers (“Corps”) approved DFG to be the sponsor of a statewide program that would provide In-Lieu Fee compensatory mitigation associated with Corps permits under §404 of the Clean Water Act and/or §§9 or 10 of the Rivers and Harbors Act of 1899 and related federal rule at 33 C.F.R. Part 332 (the federal Mitigation Rule). Specifically, on May 23, 2014 the Corps and DFG signed an Instrument developed by DFG that set forth a comprehensive description of how DFG will administer its ILFP in Massachusetts. The ILFP is administered by the DFG Commissioner’s Office in collaboration with the Department’s Division of Marine Fisheries (“DMF”), Division of Fisheries and Wildlife (“MassWildlife”) and Division of Ecological Restoration (“DER”).

The availability of DFG’s ILFP allows permittees, with the Corps’ approval, to make a monetary payment in compensation for project impacts to aquatic resources of the U.S. in Massachusetts, in-lieu of on-site mitigation. When these In-Lieu Fee (“ILF”) payments are made to the ILFP, DFG assumes legal responsibility for implementing the required mitigation, which it does by aggregating and expending the ILF payments on approved mitigation projects. The ILFP goals include implementing in-kind mitigation in the same geographical area where impacts occurred. For the purposes of the ILFP, Massachusetts is divided into geographic Service Areas. Appendix A of this report includes a map showing the boundaries of ILF Service Areas and the locations of all permitted impacts for which an ILF payment has been made (from 5/23/14 – 12/31/21).

This calendar year (“CY”) 2021 Annual Report is provided in accordance with Section XVIII of the ILFP Instrument, which requires that DFG submit an annual report that includes information on each Corps-permitted project for which an ILF payment was made to DFG, the ending balance of ILFP credits advanced and released at the end of the annual reporting period for each Service Area, and a related financial accounting ledger. Appendix B includes information on all ILF payments and credits tracked from the date of the establishment of the DFG ILFP on May 23, 2014 through December 31, 2021. Section II of this report includes the ending balance of credits (Table 3) and financial account ledger (Table 4). This report also provides an update on ILF mitigation project implementation (Section III), program development plans (Section IV), and DMF ILF projects that were approved under a Memorandum of Agreement with the Corps, prior to the 2014 ILFP Instrument (Section V).

### **I. Executive Summary**

Since the DFG’s ILFP was established in May of 2014, 78 Corps permittees have made an ILF payment to the program (through 12/31/21) for 99 Corps-permitted projects. The payments

received by DFG since the ILFP was established total \$6,372,707<sup>1</sup> These payments were required to provide compensatory mitigation for impacts to 9.614 acres of wetlands and 995 linear feet of river and stream. Table 1 below includes a summary of freshwater and tidal mitigation credits sold and ILF payments received since program establishment.

During CY 2021 (01/01/2021 - 12/31/2021), DFG's ILFP received eight payments from permittees who were required by the Corps to make an ILF payment. DFG received ILF payments totaling \$330,470 in CY 2021, for a total program revenue of \$6,372,707. The 2021 ILF payments were required to compensate for impacts to 0.478 acres of wetland resources and 120 linear feet of river and stream. Section II, Table 2 provides a summary of these 2021 payments and the corresponding credits sold statewide and within each Service Area.

The Corps approved partial release of credits for several MA ILF mitigation projects in 2021. See Table 3 for a summary of mitigation credits advanced, sold, and ending balance by Service Area. Implementation of the first MA ILF mitigation project, an eelgrass restoration project, began in CY 2017 when DFG's Division of Marine Fisheries (DMF) planted half of an acre of eelgrass in Salem Sound. Additional planting occurred in 2018, and the project completed its fourth full year of monitoring for the original planting and its third year of monitoring for the supplemental planting in 2021. Sixty-five percent, or 0.325, of the total project credits were released in 2021 for completing the planting and monitoring. Five mitigation projects were approved by the Corps in 2019: three preservation projects, an artificial reef, and a fish passage project. All credits for the three preservation projects sponsored by DFG's Division of Fisheries and Wildlife (MassWildlife), including 2.93 freshwater wetland credits, 1.326 tidal wetland credits, and 220 stream credits, were released in 2021. No additional credits have been released for DMF's artificial reef in Nantucket Sound since the first forty percent, or 0.2796, of the total credits associated with the project were released in 2020 for completion of the installation. The Willowdale Fish Passage project has been delayed, and no credits released to date for that project. Three mitigation projects approved by the Corps in 2020 and another seven projects approved in 2021 are underway. A summary of these projects is provided below in Section III.

The total expenditure of ILFP revenue by the end of calendar year 2021 amounted to \$1,703,676, of which \$1,457,912 was for mitigation project implementation and the balance was for program administration. Most of the mitigation project expenditures occurred in 2019-2020. ILF Project expenditures for CY 2021 amounted to \$44,190.41.

This Annual Report includes a 2021 ILFP financial account ledger (Table 4) showing beginning and ending balances for the calendar year, with a summary of ILF payments received for each Service Area and a summary of expenditures for mitigation projects and administrative expenses. The ILFP continues to track all ILF payments received, and credits sold by Service Area and by type of

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<sup>1</sup> Total ILFP receipts were \$440 less than the total ILF payment amount required by Corps permit due to two errors: 1) on a permittee check, amount paid was \$12,260 instead of the required \$12,620 and 2) on a DFG deposit where check was correctly made out for \$4,991 but deposit amount was \$4,911.

resource impact. See Appendix B for a listing of all ILF payments received (5/23/14 - 12/31/21) with corresponding details on permittee, Corps permit number, geographic location, and the type of resource impact for which an ILF payment was required. Some ILF payments were for multiple resource impacts, and these fees are broken out in Appendix B to reflect the payment for each type of resource impact. Additionally, some permittees have made payments for multiple projects. Therefore, the total number of records (117) in Appendix B is greater than the total number of permittees (78) or Corps-permitted projects (99) for which an ILFP payment was made.

## II. ILF Payments, Mitigation Credits Sold, and Calendar Year 2021 Financial Account Ledger

A total of 9.615 wetland credits and 995 stream credits have been sold since the establishment of the ILFP in 2014. Wetland ILF payments and associated credit sales are calculated based on the area (square feet, acres) of impact. The sale of 9.615 wetlands credits represents ILF payments made in compensation for a total of 9.615 acres of wetlands impact. Stream credits are calculated based on linear feet of impact. The sale of 995 stream credits reflects the receipt of ILF payments for impact to 995 linear feet of riverine aquatic resources. One stream credit is equivalent to one linear foot of stream including both banks and stream channel (e.g., impacts to one linear foot of stream on right bank only would require purchase of 0.33 stream credits). Table 1a below provides a summary of the amount of freshwater and tidal wetlands and stream credits that were sold within each ILF Service Area since the establishment of the ILFP through December 31, 2021. Table 1b provides further detail for the three Coastal sub-areas.

**TABLE 1a. ILFP Service Areas: Summary of Freshwater and Tidal Mitigation Credits Sold and ILF Payments Received Since Program Establishment**

Service Area	Credits Sold		Total ILF Payments Received (5/23/14 – 12/31/21)
	Wetlands Credits	Stream Credits	
<b>Berkshire/Taconic Service Area</b> Freshwater	0.00	75.33	\$22,600
<b>Connecticut River Service Area</b> Freshwater	0.454	266.76	\$333,683
<b>Quabbin/Worcester Service Area</b> Freshwater	0.315	202.00	\$249,081
<b>Coastal Service Area</b> Freshwater	3.898	447.36	\$2,690,336
Tidal	4.947	3.3	\$3,077,009
<b>TOTAL</b> Freshwater	<b>9.614</b> 4.666	<b>994.75</b> 991.45	<b>\$6,372,709</b> 3,295,699
Tidal	4.947	3.30	3,077,008

**TABLE 1b. Coastal Service sub-areas: Summary of Freshwater and Tidal Mitigation Credits Sold and ILF Payments Received Since Program Establishment**

Coastal Service Area sub-areas	Credits Sold		Total ILF Payments Received (5/23/14 – 12/31/21)
	Wetlands Credits	Stream Credits	
North sub-area			
Freshwater	0.937	244.36	\$729,155
Tidal	4.248	3.3	\$2,640,049
Central sub-area			
Freshwater	0.714	64.00	\$482,104
Tidal	0.249	0.0	\$153,891
South sub-area			
Freshwater	2.247	139.0	\$1,479,077
Tidal	0.45	0.0	\$283,069

Table 2 below summarizes credits sold and payments received in 2021 by Service Area and statewide.

**TABLE 2. Calendar Year 2021 ILF Payments Received and Credits Sold**

ILF Service Area	2021 Wetland Credits Sold	2021 Stream Credits Sold	2021 ILF Payments Received (01/01/21 – 12/31/21)
Berkshire/ Taconic	0.00	0.00	\$0
Connecticut River	0.00	120.00	\$36,000
Quabbin/Worcester	0.028	0.00	\$17,022
Coastal-North	0.439	0.00	\$270,926
Coastal-Central	0.009	0.00	\$5,653
Coastal-South	0.001	0.00	\$870
<b>2021 Statewide Total</b>	<b>0.478</b>	<b>120.00</b>	<b>\$330,470</b>

When the ILFP was established in 2014, advanced credits were allocated to the Service Areas. Table 3 below outlines credits advanced, sold, released, and the ending credit balance for 2021.

**TABLE 3. Calendar Year 2021 Ending Balance of Credits by ILF Service Area.**

ILF Service Area	Credits Advanced		Credits Sold		Credits Released <sup>2</sup>		2021 Ending Balance (12/31/21)	
	Wetland	Stream	Wetland	Stream	Wetland	Stream	Wetland	Stream
Berkshire/Taconic	50	5,741	0	75.33	0.2	220	50.2	5,885
Connecticut River	50	2,500	0.454	266.76	0	0	49.55	2,233
Quabbin/Worcester	52	2,500	0.315	202	0	0	51.69	2,298
Coastal	130 <sup>3</sup>	162,819	8.846	450.66	8.882	25.51	130.036	162,394
<b>Statewide Total</b>	<b>282</b>	<b>173,560</b>	<b>9.615</b>	<b>994.75</b>	<b>9.082</b>	<b>245.51</b>	<b>281.476</b>	<b>172,810</b>

The Financial Account Ledger for Calendar Year 2021 is presented in Table 4 below (4A – 4E). Program expenditures in 2021 were used for monitoring and reporting on the Salem Sound eelgrass restoration and Yarmouth reef projects, the development of the eelgrass restoration site selection model, the design of a cranberry bog restoration in Mashpee, and ILFP administrative costs.

<sup>2</sup> Credits released for the Coastal Service Area includes 3.733 wetland credits and 25.2 stream credits released from pre-2014 DMF ILF projects. Credits generated in 2021 (1.97 wetland and 300 stream) by the Westport Coldwater Streams project (see IL09 below) are not included, to be released on RIBITS in January 2022.

<sup>3</sup> Prior annual reports inaccurately noted advanced credits as “50” in the Coastal Service Area. However, as indicated in the MA ILFP Instrument, 130 advance credits were allocated to the Coastal Service Area.

TABLE 4. MA ILFP Financial Account Ledger

**4A. MA ILFP Revenue by Service Area**

ILFP Service Area	Beginning Balance Payments Received 5/23/14 - 12/31/20	CY 2021 Payments Received 1/1/21 - 12/31/21	Total ILF Payment Revenue [5/23/14 - 12/31/21]
<b>Berkshire/Taconic</b>	\$22,600	\$0	<b>\$22,600</b>
<b>Connecticut River</b>	\$297,683	\$36,000	<b>\$333,683</b>
<b>Quabbin/Worcester</b>	\$232,059	\$17,022	<b>\$249,081</b>
<b>Coastal</b>	\$5,489,895	\$277,448	<b>\$5,767,343</b>
<i>Coastal-North</i>	\$3,098,278	\$270,926	\$3,369,204
<i>Coastal Central</i>	\$630,342	\$5,652	\$635,994
<i>Coastal South</i>	\$1,761,275	\$870	\$1,762,145
<b>subtotal</b>	<b>\$6,042,237</b>	<b>\$330,470</b>	<b>\$6,372,707</b>

**4B. Allocation of ILF Payment Revenue to Mitigation Project Implementation and Program Administration**

ILFP Service Area	Total ILF Payments Received (5/23/14 - 12/31/21)	Mitigation Project Implementation (82.5%)	ILF Program Administration (17.5%)
<b>Berkshire/Taconic</b>	\$22,600	\$18,645	\$3,955
<b>Connecticut River</b>	\$333,683	\$275,289	\$58,395
<b>Quabbin/Worcester</b>	\$249,081	\$205,491	\$43,589
<b>Coastal</b>	\$5,767,343	\$4,758,058	\$1,009,285
<i>Coastal-North</i>	\$3,369,204	\$2,779,593	\$589,611
<i>Coastal Central</i>	\$635,994	\$524,695	\$111,299
<i>Coastal South</i>	\$1,762,145	\$1,453,770	\$308,375
<b>subtotal</b>	<b>\$6,372,707</b>	<b>\$5,257,483</b>	<b>\$1,115,224</b>



**4C. MA ILF Mitigation Project Funds and Expenditures by Service Area [5/23/14 - 12/31/21]**

ILFP Service Areas	Mitigation Project Funds 82.5% of total ILF Payments	Total Project Expenditures	Ending Balance <sup>4</sup> Mitigation Project Funds 12/31/21
<b>Berkshire/Taconic Service Area</b>	\$18,645	\$13,447	\$5,198
<b>Connecticut River Service Area</b>	\$275,289	\$0	\$275,289
<b>Quabbin/Worcester Service Area</b>	\$205,491	\$0	\$205,491
<b>Coastal Service Area</b>	\$4,758,058	\$1,444,465	\$3,313,593
<i>North sub-area</i>	\$2,779,593	\$509,719	\$2,269,874
<i>Central sub-area</i>	\$524,695	\$0	\$524,695
<i>South sub-area</i>	\$1,453,770	\$934,746	\$519,024
<b>Total</b>	<b>\$5,257,483</b>	<b>\$1,457,912</b>	<b>\$3,799,571</b>

**4D. MA ILF Program Administration Funds and Expenditures - State-Wide [05/23/14 - 12/31/21]**

ILFP Service Areas	Administration Funds 17.5% of ILF Payments	Total Program Administration Expenditures <sup>5</sup>	Ending Balance Program Administration Funds
<b>All Service Areas - Statewide</b>	<b>\$1,115,224</b>	<b>\$245,764</b>	<b>\$869,460</b>

**4E. MA ILF Program Financial Summary**

	Mitigation Project Funds <sup>3</sup>	Administration Funds	TOTAL
<b>Revenue</b>	\$5,257,483	\$1,115,224	<b>\$6,372,707</b>
<b>Expenditures</b>	\$1,457,912	\$245,764	<b>\$1,703,676</b>
<b>Balance</b>	<b>\$3,799,571</b>	<b>\$869,460</b>	<b>\$4,669,031</b>

<sup>4</sup> \$1,703,430 of the 12/31/21 Ending Balance is committed to ILF projects awarded funding prior to 12/31/2021

<sup>5</sup> Administration funds were used for ILF Program staffing - Program Administrator and ILF Aquatic Mitigation Specialist. DFG also funded portions of the ILFP staff salaries with other non-ILF DFG funds.

### III. ILFP Mitigation Projects

TABLE 5. Project Status\_Summary

DFG#	ILF Project	Project Status
IL01	Eelgrass Restoration, Salem Sound	Final Mitigation Plan and fourth year of monitoring complete
IL02	Nemasket River Preservation, Middleboro	Final Mitigation Plan and Year 1 monitoring complete, protection instruments in place
IL03	Williams River Preservation	Final Mitigation Plan and Year 1 monitoring complete, protection instruments in place
IL04	Town Farm_Greens Point Preservation, Ipswich	Final Mitigation Plan and Year 1 monitoring complete, protection instruments in place
IL05	Yarmouth Reef_Marine Habitat Enhancement	Reef deployment complete, second year of monitoring underway
IL06	Willowdale Dam Fishway, Ipswich	Delayed due to Covid 2020 and high flows 2021. Fishway installation scheduled for Fall 2022
IL07	Parker River Connector Preservation, Newbury	Final Mitigation Plan complete and protection instruments in place
IL08	Eelgrass Restoration, Site Suitability and Test Planting	Phase 1 and 2 of site suitability studies underway. Two sites selected for test planting in 2022
IL09	Lyons Brook Coldwater Stream Preservation, Westport	Final Mitigation Plan and Year 1 monitoring complete, protection instruments in place
IL11	Chop Chaque Cranberry Bog Restoration, Mashpee	Feasibility study and concept design complete. Planning for final design and permitting phase in 2022
IL12	Plymouth Bog Preservation	Delayed. Project sponsor, landowner and Town negotiating agreement for multiple properties, including protection instrument for ILF site in 2022
IL13	Plum Brook Restoration, Amherst	Under re-evaluation for feasibility as an ILF project due to significant increases in costs.
IL14	Gionet Preservation, Barre	Draft Mitigation Plan, Baseline Documentation and draft protection instrument complete. Closing expected in late March 2022
IL15	Nantucket Oyster Reef and Salt Marsh Enhancement	Oyster reef in place, post-construction report and Year 1 monitoring underway
IL16	Pye Brook Weir Removal, Topsfield/Ipswich	Accepted as a mitigation project based on Corps Initial Evaluation. Draft mitigation plan to be developed
IL17	Nantucket Eelgrass Restoration, Nantucket Harbor	Draft Mitigation Plan under review by Corps and IRT. Eelgrass planting planned for Spring 2022

#### IL01. Eelgrass Restoration Project, Salem Sound

The Division of Marine Fisheries (DMF) eelgrass restoration project was approved by the Corps in 2017 and awarded \$262,092 in ILF funding. The project is restoring eelgrass meadows in the ILFP's Coastal-North Service Area at the Middle Ground site in Salem Sound. The goal of this project is the restoration of ½ acre of eelgrass by 2021. DMF has completed the fourth year of annual monitoring. Restoration success is determined by the persistence and expansion of the planted eelgrass over six years, from 2017 to 2023. Metrics are on the expected restoration trajectory. That is, they have continued to show planting unit survival greater than 50% and an annual increase in density and plot expansion overall. In 2021 all transplant sites increased in morphometrics and expanded in area from the previous year. DMF will monitor the transplant sites again in July 2022 and July 2023. The final monitoring in 2023 will include diver surveys and acoustic mapping to document the full restoration area. A final report will be submitted in 2023. 65% of the credits for this project (0.325 tidal wetlands credits) have been released to date. A 2021 annual monitoring report will be submitted to the Corps under separate cover.

#### IL02. Nemasket River Preservation, Middleborough, MA

This mitigation project was approved by the Corps in 2019 and awarded \$405,000 in ILF funding. MA DFG/Division of Fisheries and Wildlife (MassWildlife) Land Protection Program acquired the 95-acre property through a fee interest acquisition in June of 2019. The preservation site is located off Murdock Street in Middleborough, MA. This property includes over a mile of frontage on the Nemasket River in the upper Taunton River watershed and contains BioMap2 Aquatic Core, Wetlands Core, and Species of Conservation Concern Core habitat, as well as substantial upland buffers to these resources. Permanent protection and management of this 95-acre property by MassWildlife will ensure preservation of high-quality palustrine wetland and riverine resources in the Coastal South Service Area. The Corps released the credits for this project in 2021 (2.73 freshwater wetlands credits). A 2021 annual monitoring report will be submitted to the Corps under separate cover.

#### IL03. Williams River Preservation, West Stockbridge, MA

This mitigation project was approved by the Corps in 2019 and awarded \$13,447 in ILF funding. MA DFG/Division of Fisheries and Wildlife (MassWildlife) Land Protection Program acquired the 49-acre property in June 2019 through a fee interest acquisition. This preservation site is located off Moscow Road in West Stockbridge, MA, adjacent to MassWildlife's Maple Hill Wildlife Management Area. The property includes approximately 4,800 feet of frontage on the Williams River and 38 acres of freshwater wetlands. The Williams River, a major tributary of the Housatonic River, is an identified coldwater fisheries resource. Permanent protection and management of this parcel by MassWildlife will ensure the preservation of these aquatic resources and approximately 10 acres of upland buffer. The Corps released the credits for this project in 2021 (220 stream credits and 0.2 freshwater wetlands credits). A 2021 annual monitoring report will be submitted to the Corps under separate cover.

#### IL04. Town Farm Road Preservation, Ipswich, MA

This mitigation project was approved by the Corps in 2019 and awarded \$40,000 in ILF funding. MA DFG/Division of Fisheries and Wildlife (MassWildlife) Land Protection Program acquired the

29-acre parcel through a fee interest acquisition in June of 2019. The preservation site is located on Town Farm Road in Ipswich, MA. Permanent protection and management of this 29-acre property by MassWildlife will ensure preservation of 5 acres of coastal woodland and approximately 24 acres of estuarine intertidal wetland resources in the Coastal-North Service area. The Corps released the credits for this project in 2021, which amounted to 1.614 wetlands credits (1.326 estuarine wetlands and 0.288 upland preservation credits). A 2021 annual monitoring report will be submitted to the Corps under separate cover.

#### IL05. Marine Habitat Enhancement, Yarmouth Artificial Reef

The Yarmouth artificial reef project in the Coastal-South Service Area will enhance marine subtidal habitat in Nantucket Sound for a range of sessile and mobile species. This mitigation project was approved by the Corps in 2019 and awarded \$275,227 in ILF funding. DMF awarded a contract for the deployment of reef materials in 2019. The actual deployment was delayed until January 2020 due to weather. Approximately 2,040 cubic yards of concrete and granite were deployed from three barge loads. The entire site was surveyed using side-scan sonar on January 23, 2020 to verify that the material was deployed in accordance with permit requirements and to more precisely estimate the actual square footage of material that was deployed. The MA ILFP submitted the first annual report and credit release request for this project. The Corps approved release of 40% of the project credits (0.2796 tidal wetlands credits) on November 24, 2020. A 2021 annual monitoring report will be submitted to the Corps under separate cover.

#### IL06. Willowdale Dam Fishway, Ipswich, MA

This ILF mitigation project is a diadromous fish passage project designed to restore connectivity between marine/estuarine habitat and freshwater spawning grounds on the Ipswich River in the Coastal-North Service Area. The project was approved by the Corps in 2019 and awarded \$122,611 in ILF funding. DMF purchased the fishway sections in October 2019. The Corps permit for work at the project site, including the fish ladder, was issued January 21, 2020. The installation of the ladder was delayed in 2020 due to the pandemic and in 2021 due to above-average flow during the dry season. It is anticipated that the installation will occur in late summer/early autumn of 2022.

#### IL07. Parker River Connector Preservation, Newbury, MA

This multi-parcel mitigation project was approved by the Corps in 2020 and awarded \$234,500 in ILF funding. MA DFG/Division of Fisheries and Wildlife (MassWildlife) Land Protection Program acquired the 14-acre and 20-acre parcels through fee interest acquisition in May and June of 2020. The Essex County Greenbelt Association (ECGB) donated a conservation restriction (CR) for the adjacent 66-acre property to MA DFG. The CR, which is now held by DFG, was recorded November 1, 2021. The 14-acre parcel contains approximately 6.7 acres of upland, 0.2 acres of forested wetland, 2.3 acres of emergent wetland, and 4.6 acres of estuarine intertidal wetland resources. The 20-acre parcel contains 18 acres of estuarine intertidal wetland resources and 2 acres of upland. The 66-acre property contains approximately 21 acres of upland, 45 acres of estuarine intertidal wetlands, and 3,260 linear feet of tidal stream along Cart Creek. These three properties are located within the Great Marsh Area of Critical Environmental Concern and are identified as a MA Natural Heritage and Endangered Species Program (NHESP) Key Site and

BioMap2 Aquatic and Wetland Core habitat, among other designations. Once the CR was recorded, a final mitigation plan and credit release request was submitted to the Corps. The ILFP anticipates released of credits for this project in early 2022.

#### IL08. Eelgrass Restoration - Site Suitability Model and Test Planting

This mitigation project, sponsored by DMF, was conditionally approved by the Corps in 2020 with a phased approach to funding and implementation. The project was awarded \$241,585 in ILF funding. The goal of this project is to develop an eelgrass (*Zostera marina*) habitat suitability and transplant site selection tool with targeted test planting at selected sites. DMF will use ILFP funds to develop a preliminary map of potential eelgrass restoration sites based on desktop-accessible data, including historic eelgrass presence, surficial sediment type and water depth as well as conflicting uses. Based on the preliminary map, DMF will select 8-10 sites spanning the South, Central and North Coastal Sub-Areas to field-verify model predictions. DMF collected field data at six sites in the Coastal North and Central Sub-Areas in 2021 and is developing a mitigation plan for planting at a site in Duxbury Bay and in Boston Harbor in 2022. DMF plans to collect field data at several sites in the Coastal South Sub-Area in 2022 and select additional sites for test planting in 2023. The final map and recommendations will inform additional future full-scale eelgrass restoration projects.

#### IL09. Lyons Brook Preservation, Westport, MA (aka Westport Coldwater Streams)

This mitigation project, sponsored by the Buzzards Bay Coalition, was approved by the Corps in 2020 and awarded \$260,000 in ILF funding. Buzzards Bay Coalition acquired the fee interest in the 50-acre property in June of 2020 and granted a conservation restriction to the Westport Land Conservation Trust. The preservation site is located on Drift Road in Westport, MA, in the MA ILFP's Coastal-South Service Area. It contains approximately 46.4 acres of upland buffer, 3.6 acres of forested wetlands, and 6,600 linear feet of stream and provides important habitat for Eastern brook trout. The project will generate 1.97 wetlands credits and 300 stream credits. A 2021 annual monitoring report will be submitted to the Corps under separate cover.

#### IL11. Chop Chaque Cranberry Bog Restoration, Mashpee, MA

This mitigation project, sponsored by the Town of Mashpee, was conditionally approved by the Corps in 2021 with a phased approach to funding and implementation. The Town owns the project site, an 11.7-acre parcel of land next to Santuit Pond that includes 6.5 acres of retired cranberry bogs in the ILFP's Coastal-South Service Area. The project was awarded \$15,000 in ILF funding to complete a site reconnaissance study to evaluate the technical feasibility of restoring self-sustaining wetlands on the site and the likely cost of restoring this site. The study was completed in the fall of 2021. The ILFP plans to award additional funding to complete this restoration project and will be contracting with the Town to develop engineering design plans and complete permitting. The ILFP will submit a final mitigation plan to the Corps for review when the design plans are complete.

#### IL12. Plum Brook Culvert Replacement, Amherst, MA

This mitigation project, sponsored by the Town of Amherst, proposes replacement of the two existing 36" corrugated metal pipes that carry Plum Brook under Potwine Lane with a crossing

that meets Massachusetts' Stream Crossing Standards. The project was awarded \$98,415 in ILF funding to perform a hydrologic and hydraulic study of the site, and complete design, permitting and construction. However, the project has been on hold because the hydrologic and hydraulic study indicated the need for a larger structure requiring additional MassDOT review and resulting in a significant increase in the budget required for the project. The ILFP in consultation with Corps is re-evaluating the viability of this project for the ILFP in the context of total cost and credit generation potential.

#### IL13. Cranberry Bog Conservation, Plymouth, MA

This mitigation project, sponsored by MassAudubon, will permanently protect 228 acres of land located in Plymouth, MA. It is the first ILF project in the Coastal-Central Service Sub-Area. MassAudubon requested \$250,000 in ILF funds to record a conservation restriction on the land, and the Town of Plymouth will purchase the fee interest in the land. The land includes approximately 202 acres of upland, 3.6 acres of emergent wetlands, 0.87 acres of forested wetlands, and 7.45 acres of retired cranberry bogs. Preservation of this land will protect these resources from development. It will also allow the Town and MassAudubon to restore the inactive cranberry bogs in the future. The ILFP will submit a draft mitigation plan for the Corps to review after an appraisal has been prepared, anticipated in March 2022.

#### IL14. Burnshirt Watershed Conservation, Barre, MA

The Mount Grace Land Trust was awarded \$205,491 in ILF funds to acquire and permanently protect 40 acres of land in Barre, MA. The land includes 0.44 acres of forested wetlands, a certified vernal pool, 3,453 feet of stream, and 39.67 acres of forest. The property has several special designations, including Zone C Water Supply Protection Area, Biomap 2 Critical Natural Landscape and Core Habitat, and high ecological integrity on the CAPS Index. This is the first project in the ILFP's Quabbin Reservoir/Worcester Plateau Service Area. The property acquisition and recording of the watershed protection restriction is anticipated to be completed in March 2022. A baseline documentation report was prepared in the fall of 2021, and the ILFP submitted a draft mitigation plan for the Corps to review.

#### IL15. Oyster Reef & Saltmarsh Restoration, Nantucket, MA

The Nantucket Conservation Foundation (NCF) was awarded \$84,354 in ILF funds to install an oyster reef in Polpis Harbor and plant saltmarsh grasses to combat loss of salt marsh in an approximately 1.1-acre area around Medouie Creek due to erosion and vegetation dieback. The reef consists of three linear reef structures covering approximately 160-180 linear feet and occupies approximately 0.17 acres of intertidal habitat in the ILFP's Coastal-South Service Sub-Area. NCF will also monitor the adjacent 15.7 acres of saltmarsh for purple marsh crab and vegetation dieback and implement trapping and replanting plans as needed over the course of the project to mitigate threats to the success of the restoration. NCF purchased and seeded the oyster castles in the spring of 2021 and installed them at the project site in the fall after the required permits were obtained. A post-construction report will be submitted to the Corps under separate cover.

#### IL16. Pye Brook Weir Removal, Topsfield, MA

The Ipswich River Watershed Association (IRWA) was awarded \$38,590 in ILF funds to remove a concrete weir on Pye Brook that was backing up water on wetlands upstream and restricting fish passage. Removing the weir will restore natural hydrology and vegetation in 12 acres of freshwater marsh and enhance more than 25 acres of adjacent freshwater swamp in the ILFP's Coastal-North Service Sub-Area. Project construction is anticipated to occur in the summer of 2022. The Town of Topsfield Conservation Department owns the upstream wetlands and will provide long-term protection and stewardship of them.

#### IL17. Eelgrass Restoration, Nantucket, MA

The Nantucket Land Council was awarded \$105,359 in ILF funds to restore two half-acre beds of eelgrass in Nantucket Harbor. Both restoration sites are essential fish habitat (EFH). The eelgrass beds in Nantucket Harbor also support a "wild" bay scallop fishery that is rare in the U.S. Baseline assessment was done in the fall of 2020 and 2021 and a draft mitigation plan was submitted to the Corps in January of 2022. Planting is scheduled to begin in the fall of 2022. Restoration success is determined by the persistence and expansion of the planted eelgrass over five years of monitoring.

### **IV. Program Development Update**

#### Mitigation Project Selection - 2021

In 2021, the ILFP conducted targeted outreach within DFG's divisions and programs, to other state agencies, and to municipalities and non-governmental organizations to solicit projects that could specifically meet overdue or upcoming credit obligations. Five prospectuses were received from non-governmental organizations in the spring of 2021. After conducting site visits with the Corps, the ILFP requested a public notice for four of the projects. Some projects that were identified during targeted outreach were at an early stage of development and may be included in a future public notice.

#### Mitigation Project Selection - 2022

In 2022, the ILFP will continue to diversify its outreach and identification of priority restoration projects with particular focus on estuarine environments, where most impacts that have paid into the ILFP have occurred. The ILFP is also partnering with DFG's Division of Ecological Restoration on an effort to identify and prioritize potential freshwater wetland restoration sites.

#### Standard Operating Procedures (SOPs) for the MA ILFP

In 2021, the ILFP developed draft SOPs for program administration that address management, financial, and ecological goal. The ILFP plans to share the draft SOP document with the Corps for review and comment (March 2022). The draft SOPs are part of an Internal Control Plan (ICP), which presents a comprehensive assessment of risks that could impede the achievement of the goals and objectives of the MA DFG ILFP and lays out a set of internal controls and best practices to avoid and minimize those risks. The ILFP SOPs will become integrated as part of a DFG-wide ICP.

### Instrument Updates and Amendments

MA DFG is currently in consultation with the Corps regarding a proposed draft Amendment to the ILFP Instrument that would include provisions for potential transfer of small amounts of funds and credits between ILFP Service Areas. Such provisions could be useful, for example, if there has been a low level of credit sales in a Service Area and insufficient funds accrued to implement a mitigation project, or if a small amount of funds remain after all mitigation obligations are met in a Service Area and the funds could be used to support a project in an adjacent Service Area.

In 2022, the ILFP plans to begin re-evaluation of the 2014 ILFP Instrument and development of recommendations for revisions. This work will lay the foundation for preparation and submittal to the Corps and IRT of a proposed 10-Year Instrument update in 2023, with a view to completing the Corps review and approval process by the Spring of 2024.

## **V. DMF ILFP Project Updates**

This section of the ILFP 2021 Annual Report provides an update on four mitigation projects that were undertaken by DMF prior to the 2014 DFG ILFP Instrument.

### **Project 1. Off Billington Street Dam Removal Project – Plymouth**

As noted in the 2018 ILF Program Annual Report, this project was successfully completed. ILFP funds were used to vegetate the exposed stream banks once the impoundment behind the dam was drained. DFG submitted project monitoring reports and a request for release of credits to the Corps in December of 2021.

### **Project 2. Rough Meadows - Rowley**

This ILF project was completed in 2018. In 2021, the Corps released final credits in the amount of 0.733 wetland credits for this project.

### **Project 3. Upper Great Marsh – Newbury**

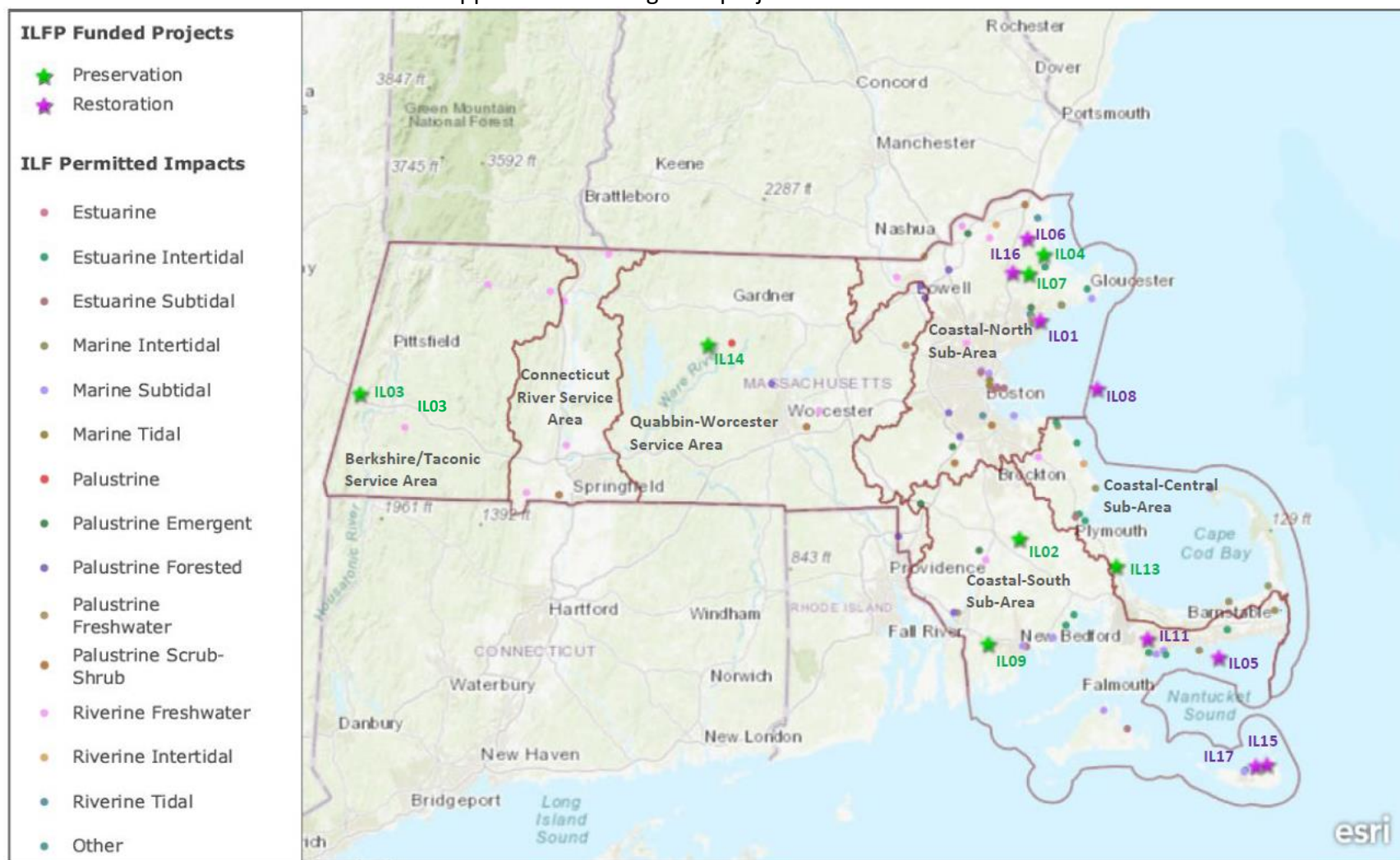
In 2018, the Corps released final credits in the amount of 3 wetland credits for this project.

### **Project 4. Draka Dam Fish Passage – Three Mile River, Taunton**

This DMF diadromous fish passage project was successfully completed in 2019. The ILFP submitted a post-construction report and the first annual monitoring report in the fall of 2021. The Corps released 25.5 stream credits for this project in December of 2021. Additional credits may be released upon completion of outstanding performance standards: a 2022 monitoring report, operations & maintenance plan, and a site inspection five years post-construction.



**Appendix A. ILFP Map** – Service Area boundaries, locations of impacts for which ILF payments were made<sup>1</sup> and locations of approved ILFP mitigation projects<sup>2</sup>



<sup>1</sup>Includes all ILF payments received by DFG from 5/23/14 – 12/31/2021.

<sup>2</sup>Seven mitigation project proposals were selected for funding in 2021; nine mitigation project proposals were previously approved.

## Appendix B. Complete Listing of ILF Payments Received and Mitigation Credits Sold

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
<b>Berkshire-Taconic Service Area</b>							
NAE-2014-01945	Tennessee Gas Pipeline Company	Tyringham	\$2,500.00	11/06/14	Riverine Freshwater	0.00	8.33
NAE-2015-01572	MassDOT-Highway Division	Shelburne	\$13,800.00	12/09/16	Riverine Freshwater	0.00	46.00
NAE-2020-00432	MassDOT-Highway Division	Charlemont	\$6,300.00	08/10/20	Riverine Freshwater	0.00	21.00
	<b>Subtotal</b>	<b>Berkshire</b>	<b>\$22,600.00</b>			<b>0.00</b>	<b>75.33</b>
<b>Coastal Service Area_Central sub-area</b>							
NAE-2006-03754	Town of Scituate	Scituate	\$99,820.00	09/08/15	Estuarine Intertidal	0.16	0.00
NAE-2016-01044	MassDOT-Highway Division	Norwell	\$38,400.00	12/09/16	Riverine Freshwater	0.00	64.00
NAE-2016-01044	MassDOT-Highway Division	Norwell	\$173,926.00	12/09/16	Palustrine Forested	0.28	0.00
NAE-2008-01239	Michael Solimando	Scituate	\$1,711.20	03/16/17	Marine Intertidal	0.00	0.00
NAE-2006-04281	Provincetown Airport Commission	Provincetown	\$269,777.81	08/01/17	Palustrine Forested	0.43	0.00
NAE-1995-00532	Cohasset Yacht Club	Cohasset	\$2,245.95	10/26/17	Marine Intertidal	0.00	0.00
NAE-2015-02882	Town of Dennis	Dennis	\$39,754.60	10/30/18	Marine Intertidal	0.06	0.00
NAE-2016-01575	MassDOT-Highway Division	Cohasset	\$4,705.80	05/07/19	Estuarine Intertidal	0.01	0.00
NAE-2018-02770	Town of Kingston	Kingston	\$228.16	03/15/21	Estuarine Intertidal	0.000367	0.00
NAE-2021-00399	Town of Duxbury	Duxbury	\$4,911.00	05/10/21	Marine Intertidal	0.008	0.00
NAE-2021-00677	Kurt Johnson	Kingston	\$513.36	05/28/21	Estuarine Intertidal	0.0008	0.00
	<b>Subtotal</b>	<b>Coastal_Central</b>	<b>\$635,994</b>			<b>0.963</b>	<b>64.00</b>
<b>Coastal Service Area_North sub-area</b>							

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
NAE-2011-00106	Global Companies, LLC	Chelsea	\$7,500.76	09/11/14	Marine Subtidal	0.01	0.00
NAE-2011-00106	Global Companies, LLC	Chelsea	\$11,764.24	09/11/14	Marine Intertidal	0.02	0.00
NAE-2014-02637	Charles Loutrel	Marblehead	\$2,623.84	05/05/15	Marine Subtidal	0.00	0.00
NAE-2014-00114	Algonquin Gas Transmission, LLC	Salem	\$151,554.00	06/24/15	Marine Subtidal	0.24	0.00
NAE-1999-03185	MA Dept. of Conservation and Recreation	Canton	\$3,000.00	10/14/15	Palustrine Freshwater	0.01	0.00
NAE-2005-01095	City of Salem	Salem	\$2,852.00	01/11/16	Marine Intertidal	0.01	0.00
NAE-2004-00525	Nicholas Iselin for Lend Lease Development. Inc.	East Boston	\$5,040.00	04/27/16	Marine Tidal	0.01	0.00
NAE-2015-01169	Lisa Martinez and Chris Williams	Manchester	\$812.00	06/28/16	Estuarine Intertidal	0.00	0.00
NAE-2015-00875	New England Power Company/ National Grid	Andover, Dracut, Tewksbury	\$227,009.00	08/05/16	Palustrine Freshwater	0.37	0.00
NAE-2016-01170	Economic Development and Industrial Corp. of Boston	Boston	\$18,623.00	08/19/16	Marine Subtidal	0.03	0.00
NAE-2013-01026	Wynn MA LLC	Everett	\$48,769.20	12/14/16	Marine Subtidal	0.08	0.00
NAE-2002-02261	Rustom Cowasjee	Boston	\$106,950.00	01/25/17	Marine Tidal	0.17	0.00
NAE-2009-00539	MassDOT-Highway Division	Amesbury, Salisbury	\$50,880.00	02/01/17	Palustrine Freshwater	0.08	0.00
NAE-2016-02158	Arunas Martinonis	Gloucester	\$4,705.00	05/30/17	Marine Subtidal	0.01	0.00
NAE-2017-00101	Massachusetts Port Authority	East Boston	\$4,939.00	06/21/17	Marine Subtidal	0.01	0.00
NAE-2011-001084	Kai Juel, III	Manchester	\$4,791.36	08/03/17	Marine Intertidal	0.01	0.00

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
NAE-2009-001173	Martin Hahn and David Crosby	Manchester	\$5,147.86	08/03/17	Marine Intertidal	0.01	0.00
NAE-2012-00558	Manchester Marine Corporation	Manchester	\$49,339.60	08/14/17	Marine Intertidal	0.08	0.00
NAE-2009-00146	Peter Creighton	Manchester	\$7,557.80	08/14/17	Marine Intertidal	0.01	0.00
NAE-1994-02959	Randy Wood	Manchester	\$1,611.38	08/14/17	Marine Intertidal	0.00	0.00
NAE-2012-00557	Sunset Rock, LLC	Manchester	\$24,997.78	08/14/17	Marine Intertidal	0.04	0.00
NAE-2013-02022	Ledyard McFadden	Manchester	\$2,452.72	08/17/17	Marine Intertidal	0.00	0.00
NAE-2010-02461	Massachusetts Bay Transportation Authority	Boston	\$3,900.00	08/25/17	Riverine Tidal	0.01	0.00
NAE-2013-02187	Eversource Energy	Walpole, Holbrook	\$9,317.00	10/04/17	Palustrine Forested	0.02	0.00
NAE-2013-02187	Eversource Energy	Walpole, Holbrook	\$4,813.00	10/04/17	Palustrine Emergent	0.01	
NAE-2017-00669	MassDOT-Highway Division	Haverhill	\$18,180.00	12/13/17	Riverine Freshwater	0.00	30.30
NAE-2002-02261	Tyler Deaton, 140 Northern Ave LLC	Boston	\$36,134.00	12/20/17	Marine Intertidal	0.06	0.00
NAE-2002-02261	Tyler Deaton, 140 Northern Ave LLC	Boston	\$108,404.00	12/20/17	Marine Intertidal	0.17	0.00
NAE-2005-01170	Beverly Port Marina	Beverly	\$1,426.00	01/22/18	Marine Intertidal	0.00	0.00
NAE-2017-01145	Esty Park Trust	Groveland	\$2,440.00	02/08/18	Riverine Freshwater	0.00	4.06
NAE-2012-00440	Massport	Boston	\$93,963.00	05/08/18	Estuarine Subtidal	0.15	0.00
NAE-2012-00440	Massport	Boston	\$96,255.00	05/08/18	Estuarine Intertidal	0.16	0.00
NAE-2013-02187	Eversource Energy	Walpole, Holbrook	\$427.80	05/14/18	Palustrine Scrub-Shrub	0.00	0.00

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
NAE-2016-00503	Nstar Electric dba Eversource Energy	Needham	\$28,132.00	06/04/18	Palustrine Forested	0.05	0.00
NAE-2009-00539	MassDOT-Highway Division	Amesbury, Salisbury	\$3,351.00	06/15/18	Palustrine Scrub-Shrub	0.01	0.00
NAE-2013-01690	MassDOT-Highway Division	Haverhill	\$14,699.00	06/15/18	Palustrine Emergent	0.02	0.00
NAE-2016-01163	Harbor Electric Energy Company	South Boston, Winthrop	\$594,706.00	06/20/18	Estuarine Subtidal	0.96	0.00
NAE-2017-02473	John Bruni	Ipswich	\$741.52	08/09/18	Estuarine Intertidal	0.00	0.00
NAE-2018-01255	Twig Rush Dock Assoc., Craig Gould	West Newbury	\$1,026.72	08/14/18	Riverine Intertidal	0.00	0.00
NAE-2017-00100	Cronin Holdings LP	Boston	\$7,173.00	09/10/18	Marine Subtidal	0.01	0.00
NAE-2014-01038	Norwood Airport Commission	Norwood	\$122,636.00	10/03/18	Palustrine Emergent	0.20	0.00
NAE-2014-00930	Town of Winchester	Winchester	\$15,000.00	10/12/18	Riverine Freshwater	0.00	25.00
NAE-2010-02461	MBTA	Milton	\$2,000.00	10/15/18	Riverine Tidal	0.00	3.30
NAE-2016-01969	Town of Chelmsford	Chelmsford	\$111,000.00	10/25/18	Riverine Freshwater	0.00	185.00
NAE-2011-00750	Brewer Hawthorne	Salem	\$12,260.10	10/24/19	Marine Intertidal	0.02	0.00
NAE-2015-02118	MBTA	Boston	\$198,214	01/18/19	Estuarine Intertidal	0.32	0.00
NAE-2015-02118	MBTA	Boston	\$735,816	01/18/19	Estuarine Subtidal	1.18	0.00
NAE-2016-01163	Harbor Electric Energy Company	Boston	\$31,444.00	04/22/19	Estuarine Subtidal	0.05	0.00
NAE-2016-02678	City of Beverly	Beverly	\$2,500.50	01/14/19	Palustrine Emergent	0.00	0.00
NAE-2017-01385	Jack Tatelman	Marblehead	\$9,625.50	06/24/19	Marine Intertidal	0.02	0.00

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
NAE-2017-02272	Tuck Point condominium trust	Beverly	\$1,497.30	10/24/19	Marine Subtidal	0.00	0.00
NAE-2017-02272	Tuck Point condominium trust	Beverly	\$855.60	10/24/19	Marine Intertidal	0.00	0.00
NAE-2018-02229	Michael Settles	Beverly	\$1,140.00	01/14/19	Riverine Tidal	0.00	0.00
NAE-2018-02240	American Yacht Club, c/o Ron Barrett	Newburyport	\$299.46	04/02/19	Riverine Tidal	0.00	0.00
NAE-2019-00897	Heidi Herlihy	Marblehead	\$4,563.20	11/12/19	Marine Subtidal	0.01	0.00
NAE-2016-02013	Town of Andover	Andover	\$73,004.00	03/04/20	Palustrine Forested	0.12	0.00
NAE-2017-00159	City of Quincy	Quincy	\$8,413.40	05/19/20	Marine Subtidal	0.01	0.00
NAE-2009-00716	MassDOT	Dedham, Westwood	\$42,765.74	3/24/21	Palustrine Forested	0.069	0.00
NAE-2013-01925	MBTA	Gloucester	\$228,160.00	01/04/21	Estuarine intertidal	0.377	0.00
	<b>Subtotal</b>	<b>Coastal_North</b>	<b>\$3,369,204</b>			<b>5.185</b>	<b>247.66</b>
<b>Coastal Service Area_South sub-area</b>							
NAE-2014-01583	Mary C. Kariotis	Osterville	\$1,408.00	11/05/15	Marine Subtidal	0.00	0.00
NAE-2002-00169	Great Island Homeowner's Assoc. Inc.	West Yarmouth	\$570.40	11/08/16	Marine Intertidal	0.00	0.00
NAE-2015-00827	US Army Corps of Engineers	Taunton	\$260,890.00	12/21/16	Palustrine Emergent	0.42	0.00
NAE-2014-01348	Robert Benedetto	Cotuit	\$1,369.00	01/25/17	Estuarine Intertidal	0.00	0.00
NAE-2014-01310	Town of Marion	Marion	\$33,539.00	06/29/17	Estuarine Intertidal	0.05	0.00
NAE-2008-03185	MassDOT-Highway Division	Somerset, Fall River	\$664,059.00	12/21/17	Palustrine	1.07	0.00
NAE-2014-01547	DFG/Town of Tisbury	Tisbury	\$9,154.92	01/29/18	Marine Subtidal	0.01	0.00
NAE-2014-01547	DFG/Town of Tisbury	Tisbury	\$1,426.00	01/29/18	Marine Intertidal	0.00	0.00

ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
NAE-2017-02648	Jennifer and Edmund Murphy	Osterville	\$2,224.56	03/29/18	Estuarine Intertidal	0.00	0.00
NAE-2017-01115	EM Crosby Boatworks	Osterville	\$4,099.00	05/14/18	Marine Subtidal	0.01	0.00
NAE-2017-01115	EM Crosby Boatworks	Osterville	\$4,099.00	05/14/18	Marine Intertidal	0.01	0.00
NAE-2017-01452	New England Power d/b/a National Grid	Somerset MA	\$105,253.06	05/23/18	Palustrine Scrub-Shrub	0.17	0.00
NAE-2017-01452	New England Power d/b/a National Grid	Somerset MA	\$109,461.19	05/23/18	Palustrine Forested	0.18	0.00
NAE-2009-02719	Fairhaven Shipyard Companies, Inc.	Fairhaven	\$158,785.00	06/04/18	Estuarine Subtidal	0.25	0.00
NAE-2018-01440	Farm Lane Assoc.	South Dennis	\$684.48	10/03/18	Estuarine Intertidal	0.00	0.00
NAE-2017-00160	Brendan Magauran	Orleans	\$2,010.66	08/26/19	Marine Intertidal	0.00	0.00
NAE-2017-01613	Cow Bay Corporation	Edgartown	\$399.28	04/09/19	Estuarine Intertidal	0.00	0.00
NAE-2017-01613	Cow Bay Corporation	Edgartown	\$2,481.24	04/09/19	Estuarine Subtidal	0.00	0.00
NAE-2018-02412	Town of Plainville DPW	Plainville	\$2,695	02/06/19	Palustrine Emergent	0.00	0.00
NAE-2018-02575	US Coast Guard CEU Providence	Nantucket	\$27,771.35	08/19/19	Estuarine Intertidal	0.04	0.00
NAE-2018-03065	Stephen and Carol Milligan	Marion	\$171.12	04/17/19	Estuarine Intertidal	0.00	0.00
NAE-2019-00272	Town of Plymouth	Plymouth	\$4,278.00	10/24/19	Estuarine Intertidal	0.01	0.00
NAE-2019-01934	Terje Tonnessen Revocable Trust	Fairhaven	\$4,470.51	10/24/19	Marine Intertidal	0.01	0.00
NAE-2016-02034	13 Shipyard Lane LLC	Mattapoisett	\$1,711.20	11/21/19	Marine Subtidal	0.00	0.00
NAE-2019-02413	NIR Retail LLC	Nantucket	\$16,541.60	09/8/20	Marine Subtidal	0.03	0.00



ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
NAE-2017-02472	MA Office of Fishing & Boating Access	Eastham	\$5,005.00	01/31/20	Marine Intertidal	0.0081	0.00
NAE-2019-00359	MassDOT - Highway Division	Taunton	\$336,718.21	08/31/20	Palustrine Forested, Riverine	0.4078	139
NAE-2010-00684	MA DCR	New Bedford	\$869.86	10/18/21	Marine Subtidal	0.001	0.00
	<b>Subtotal</b>	<b>Coastal_South</b>	<b>\$1,762,145.74</b>			<b>2.697</b>	<b>139</b>
<b>Connecticut River Service Area</b>							
NAE-2014-01772	Tennessee Gas Pipeline Company	Southwick	\$12,500.00	10/24/14	Riverine Freshwater	0.00	41.66
NAE-2013-01364	Exxonmobil Corp.	Greenfield	\$9,000.00	12/09/14	Riverine Freshwater	0.00	90.00
NAE-2011-01510	MassDOT-Highway Division	Chicopee	\$4,530.00	05/08/19	Riverine Freshwater	0.00	15.10
NAE-2018-00162	Tennessee Gas Pipeline Company, LLC	Agawam	\$271,653.19	01/15/20	Palustrine Forested, Scrub-shrub	0.454	0.00
NAE-2015-00422	MassDOT	Northfield	\$36,000	10/20/21	Riverine Freshwater	0.00	120.00
	<b>Subtotal</b>	<b>Connecticut River</b>	<b>\$333,683.19</b>			<b>0.454</b>	<b>266.76</b>
<b>Quabbin-Worcester Service Area</b>							
NAE-2005-03968	John D. Noblin/Ledge Hill Development Company LLC	North Attleboro	\$55,235.79	01/13/17	Palustrine Forested	0.09	0.00
NAE-2016-00820	James White	Concord	\$16,810.00	04/12/17	Palustrine Freshwater	0.03	0.00
NAE-2016-02614	MassDOT-Highway Division	Northborough, Shrewsbury	\$60,600.00	05/30/17	Riverine Freshwater	0.00	202.00
NAE-2016-00502	New England Power d/b/a National Grid	Grafton	\$8,128.13	04/25/18	Palustrine Scrub-Shrub	0.01	0.00
NAE-2016-00502	New England Power d/b/a National Grid	Grafton	\$5,231.13	04/25/18	Palustrine Forested	0.01	0.00
NAE-2018-00850	Clealand Blair, Jackson wood Investments, LLC	Holden	\$16,203.32	07/15/19	Palustrine Forested	0.03	0.00
NAE-2019-01032	National Grid	Lowell	\$5,415.45	10/24/19	Palustrine Forested	0.01	0.00



ACOE Permit Number	Permittee	Project location	ILF Required	Fee received by DFG	Resource Type	Wetland credits	Stream credits
NAE-2019-01730	MassDOT-Highway Division	Hubbardston	\$64,435.00	10/24/19	Palustrine	0.11	0.00
NAE-2021-00312	National Grid	Billerica	\$17,021.77	02/11/21	Palustrine Forested	0.028	0.00
	<b>Subtotal</b>	<b>Quabbin-Worcester</b>	<b>\$249,080.48</b>			<b>0.315</b>	<b>202.00</b>
TOTAL ILFP REVENUE*: <b>\$6,372,707</b>						ILFP CREDITS SOLD: <b>9.614</b>	<b>994.75</b>
<i>*From ILFP establishment in May 2014 through December 31, 2021</i>						Wetland	Stream